

*AMENDMENTS TO THE DRAWINGS*

The attached sheet 1/4 includes changes to Fig. 1. This sheet, which includes Fig. 1, replaces the original sheet including Fig. 1. Reference character 5 has been deleted from Fig. 1.

The attached sheet 2/4 includes changes to Fig. 2. This sheet, which includes Fig. 2, replaces the original sheet including Fig. 2. Reference character 29 has been changed to reference character 30 indicating the lateral exit joining piece. Reference character 50 has been changed to reference character 50a indicating the lower portion of the annular space 50 and a new reference character 50 indicating the annular space 50 has been added. Reference character 53 has been deleted.

The attached sheet 3/4 includes changes to Figs. 3 and 4. This sheet, which includes Figs. 3 and 4, replaces the original sheet including Figs. 3 and 4. Reference character 29 has been changed to reference character 30 indicating the lateral exit joining piece in Figures 3 and 4.

The attached sheet 4/4 includes changes to Fig. 5. This sheet, which includes Fig. 5, replaces the original sheet including Fig. 5. Reference character 61 has been deleted from Fig. 5. Reference character 21 indicating the front surface of central conduit section 12b has been added. The arrow pointing from reference character 23 to the seal has been extended to indicate the seal 23.

Attachment: Replacement Sheets

*REMARKS/ARGUMENTS*

The amendments set out above and the following remarks are responsive to the points raised by the Office Action dated January 26, 2007. In view of the amendments set out above and the following remarks, reconsideration is respectfully requested.

*The Pending Claims*

Several changes have been made in the specification to improve its form. These changes are essentially editorial in nature and do not constitute the addition of new matter.

Claims 1-2 are amended, and claims 10-11 are added, to define the invention more clearly. Claims 3 and 8 are amended to correct informalities. No new matter has been added, and the basis for the amended claim language may be found within the original specification, claims, and drawings. Claim 1 is supported at, for example, page 1, lines 18-21. Claim 2 is supported at, for example, page 3, lines 17-19. Claim 10 is supported at, for example, page 2, lines 26-30 and by Figure 2. Claim 11 is supported at, for example, page 2, line 26 to page 3, line 28; page 4, lines 23-29; and by Figure 2.

Claims 1-11 are pending.

*Objections to the Drawings*

With respect to the objection in paragraph 1, Figure 5 has been amended to extend the arrow pointing from reference character 23 to point more at the seal rather than at the end surface.

With respect to the objection in paragraph 2, Figures 2-4 have been amended to change reference character 29 to reference character 30 indicating the lateral exit joining piece. The specification has also been amended accordingly.

With respect to the objection in paragraph 3, Figure 2 has been amended to add reference character 50a indicating the lower portion of the annular space 50.

With respect to the objection in paragraph 4 to Figure 1, Figure 1 has been amended to delete reference character 5. With respect to the objection of Figure 2, Figure 2 has been amended to delete reference character 53. With respect to the objection to Figure 5, Figure 5

has been amended to delete reference number 61 and to add reference number 21 indicating the front surface of central conduit section 12b.

With these remarks and amendments to the drawings, it is respectfully submitted that the rejections to the drawings have been overcome and should be withdrawn.

*Objections to the Specification*

The specification was objected to on the grounds that the title headings are missing in the specification. Title headings were added to the specification in the Preliminary Amendment filed September 13, 2005.

With respect to the objection to the specification on the grounds that “the” should be inserted between “of” and “flange” at page 3, line 24, this informality was corrected in the Preliminary Amendment filed September 13, 2005.

With respect to the remaining objections to the specification, the specification has been amended to correct the various informalities.

It is respectfully submitted that with these remarks and amendments to the specification, the objections to the specification have been obviated and should be withdrawn.

*Objections to the Claims*

Claims 3 and 8 were objected to on the grounds of informalities. Claims 3 and 8 have been amended to correct these informalities. It is respectfully submitted that with these amendments to the claims, the objections to the claims have been obviated and should be withdrawn.

*Claim Rejections under 35 U.S.C. §§ 102, 103*

Claims 1-6 and 8-9 were rejected under 35 U.S.C. § 102 as anticipated by WO 99/50173 to Pollack (hereinafter, “Pollack”).

Claim 7 was rejected under 35 U.S.C. § 103 as unpatentable over Pollack in view of U.S. Patent No. 4,900,039 to Klecker et al. (hereinafter, “Klecker”).

Each of these rejections is separately and respectfully traversed.

Anticipation requires that the cited reference disclose each and every element of the claim. Amended claim 1, the only independent claim, recites that the two swivel joint devices are combined in a single rotational guiding device. Because neither of the cited references disclose that the two swivel joint devices are combined in a single rotational guiding device, as claimed, the anticipation rejection cannot be maintained.

Figure 4 of Pollack shows supply duct 54 and vapor return duct 55 located side by side within wall 56. Figure 4 shows an outer swivel joint 57 between the upper and lower support arms 75, 76 and that the LNG supply duct 54 and the vapor return duct 55 are each provided with an internal swivel joint 58 (Pollack, page 7, lines 13-17). The upper section 59 of the LNG supply duct 54 and the lower section 60 are rotatably engaged near the internal swivel joint 58. The upper and lower annular walls 62, 63, which are fixedly connected to upper section 59 and lower section 60, respectively, follow the rotational movements of the upper and lower outer support arms (Pollack, page 7, lines 17-29). Sealing elements 61 and 67 are provided between the axially engaged portions of the upper section 59 and lower section 60.

Amended claim 1 recites that two swivel joint devices are combined in a single rotational guiding device, e.g., rotational bearing 44, as shown in Figure 2 of the present application. Pollack, on the contrary, discloses two separate swivel joints, i.e., the swivel joint 57 and the internal swivel joint 58. The swivel joints 57 and 58 of Pollack are separate and are clearly not combined in a single rotational guiding device, as claimed. Moreover, as shown in Figure 4 of Pollack, the upper and lower segments 59 and 60 of supply duct 54 are rotatably connected by two different axially engaged tubular portions provided with sealing elements 61 and 67. The two different axially engaged tubular portions are not combined into a single rotational guiding device, as claimed. Because Pollack does not disclose two swivel joint devices that are combined in a single rotational guiding device, as claimed, the anticipation rejection cannot be maintained.

The system of Pollack requires metal bellows 72, 73 in the ducts 54, 55 near the swivel joint 58 in order to accommodate thermally induced contraction and expansion of the LNG supply duct 54 and the vapor return duct 55 and to prevent excessive thermal stresses from acting on the internal swivel joint 58. The bellows 72,73 prevent the thermal loads on the piping from acting on the swivel joint 58. The bellows, therefore, maintain the alignment

of the internal swivel joint 58 with the swivel joint 57 of the outer support arms 75, 76 (Pollack, page 8, lines 3-9). The claimed system, in contrast, advantageously eliminates the internal swivel joint and the bellows because it requires only one rotational guiding device, e.g., the rotational bearing 44.

The swivel joint system of the present invention is patentably distinct from that of Pollack for the reasons set forth above. The fact that Klecker may teach two concentrically placed seals pressed by a spring is of no importance to the patentability of the present claims. Klecker does not cure the deficiencies of Pollack, and therefore, the combination also fails to render the present invention obvious.

Since the independent claims are allowable for the reasons set forth above, the dependent claims are also allowable because they depend directly or ultimately from patentable independent claim 1.

Dependent claim 10 is also allowable, not only because it depends from patentable claim 1, but also because it defines limitations not taught by Pollack or Klecker. Claim 10 recites that the fixed conduit portions and the rotating conduit portions of both the return of the cold gas and the passage of the cryogenic liquid contact each other only in a plane perpendicular to the axis of the system. Because the faces of the passage of the cryogenic liquid and the return of the cold gas do not engage parallel to the axis of the system, the internal swivel joint 58 and the bellows are eliminated in the claimed device. On the contrary, as seen in Figure 4 of Pollack, rotating conduit 59 and fixed conduit 60 do not contact each other only in a plane perpendicular to the axis of the passage of the system, as claimed. Rather, the rotating conduit 59 and fixed conduit 60 of Pollack engage *parallel* to the axis of the device. Accordingly, Pollack requires the bellows and the internal swivel joint 58, which the claimed invention advantageously makes unnecessary. Because the cited references do not teach that the fixed conduit portions and the rotating conduit portions of both the return of the cold gas and the passage of the cryogenic liquid contact each other only in a plane perpendicular to the axis of the system, new claim 10 is patentable over the cited references.

New independent claim 11 recites that the facing surfaces of the axially aligned jacket sections, the facing surfaces of the central and annular conduit sections, the seals, and the

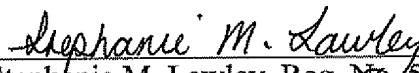
rotational guiding device are located in planes which are substantially parallel to one another and perpendicular to a longitudinal axis of the arrangement. None of the cited references disclose these features of claim 11. As seen in Figure 4 of Pollack, the facing surfaces of rotating conduit 59 and fixed conduit 60 and the seals 61, 67 are not located in planes which are parallel to each other and are *perpendicular* to a longitudinal axis of the arrangement. The facing surfaces of rotating conduit 59 and fixed conduit 60 and seals 61, 67 are, instead, located in planes that are *parallel* to a longitudinal axis of the arrangement, in contravention of claim 11. Because the cited references do not disclose facing surfaces of the axially aligned jacket sections, the facing surfaces of the central and annular conduit sections, and seals that lie in planes parallel to each other and perpendicular to the longitudinal axis of the arrangement, claim 11 is patentable over the cited references.

#### *Conclusion*

For the reasons set forth above, reconsideration of the rejections is respectfully requested.

Applicants respectfully submit that the patent application is in condition for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

  
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